

report.2002-10-08.MW8R_complete



**ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS**

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October 8, 2002

RECEIVED

OCT 11 2002

Ms. Denise M. Radtke
Senior Engineering Geologist
New York State Department of Environmental Conservation
Bureau of Solid and Hazardous Materials
625 Broadway, 8th Floor
Albany, New York 12233-7252

BUREAU OF SOLID WASTE
& LAND MANAGEMENT
DIVISION OF SOLID &
HAZARDOUS MATERIALS

Re: Former Wabash Aluminum Alloys Facility
East Syracuse, New York
Soil and Groundwater Results

Dear Ms. Radtke:

On behalf of our client, Wabash Aluminum Alloys, LLC (Wabash), this letter transmits the soil sampling and groundwater analytical results from the recent sampling activities at the above-referenced site. The soil samples were collected from five soil borings made in the area of former monitoring well MW-8. The groundwater samples are for replacement monitoring well MW-8R, which was installed at the boring B-1 location, as well as the quarterly groundwater sampling associated with the Corrective Action Management Unit (CAMU) monitoring wells.

Soil Borings

The proposed locations of the five borings and the field and laboratory procedures to be followed were outlined in a July 9, 2002 proposal submitted by C&S Engineers, Inc. on behalf of Wabash. Those procedures were subsequently approved by the New York State Department of Environmental Conservation (NYSDEC) Division of Solid and Hazardous Materials in an August 5, 2002 letter. The analytical data for the soil boring samples are summarized in Table 1 and the laboratory data sheets are provided in Attachment A.

The attached site sketch shows the approximate locations where the borings were installed. There was one deviation from the procedures presented in the July 9, 2002 letter. The drill rig was able to access the area within the former storage bins, so boring B-4 could be installed within a 20-foot radius of MW-8R, as requested by NYSDEC, rather than on the south side of the metal building.



MW-8 Replacement and Groundwater Sampling

MW-8R was constructed at the B-1 boring location, and subsequently developed, in the manners outlined in our July 9, 2002 letter. Groundwater samples were collected from monitoring well MW-8R for PCBs (Method 8082), lead (Method 6010) and Oil and Grease (Method 1664). The timing of the initial MW-8R groundwater sampling coincided with the quarterly CAMU monitoring sampling, so the results from all of these locations are provided herein. Table 2 provides the groundwater sampling results for this sampling, along with the historic sampling results for the CAMU program. The laboratory data sheets for the groundwater sampling are included in Attachment B.

Quarterly groundwater sampling for MW-8R will continue to be conducted and reported along with the subsequent quarterly CAMU sampling events. Thank you for your assistance in these matters. If you have any questions, please do not hesitate to contact Rory Woodmansee or me at (315) 455-2000.

Sincerely,

C&S ENGINEERS, INC.

A handwritten signature in cursive script that reads 'Thomas A. Barba'.

Thomas A. Barba
Senior Project Scientist

cc: Mary Jane Peachey, NYSDEC Region 7
Burt Coleman – Wabash Aluminum Alloys, LLC
Michael E. Kellogg – Connell Limited Partnership
Rory Woodmansee – C&S Engineers

TABLES

Table 1
Summary of Analytical Results for Soil
Former Wabash Aluminum Alloys Facility
Soil Borings and Monitoring Well MW-8R Installation

Boring B1					
Sample ID.	B1A	B1B	B1C	B1D	B1E
Sample Depth (feet)	0-2	2-4	4-6	6-8	8-10
PCB Aroclor 1254 (mg/kg)	2.9	1.1	15	2.2	3.4
Total Lead (mg/kg)	7.8	6.3	ND	ND	ND
Oil and Grease (mg/kg)	466	2310	9040	ND	1020

Boring B2					
Sample ID.	B2A	B2B	B2C	B2D	B2E
Sample Depth (feet)	0-2	2-4	4-6	6-8	8-10
PCB Aroclor 1254 (mg/kg)	19	47	32	1.2	0.45
Total Lead (mg/kg)	45.3	ND	ND	ND	ND
Total Oil and Grease (mg/kg)	2290	4780	16300	469	473

Boring B3					
Sample ID.	B3A	B3B	B3C	B3D	B3E
Sample Depth (feet)	0-2	2-4	4-6	6-8	8-10
PCB Aroclor 1254 (mg/kg)	4.8	2.8	1.2	0.44	0.037
Total Lead (mg/kg)	32	31.3	ND	ND	ND
Total Oil and Grease (mg/kg)	1240	4850	3210	734	347

Boring B4					
Sample ID.	B4A	B4B	B4C	B4D	B4E
Sample Depth (feet)	0-2	2-4	4-6	6-8	8-10
PCB Aroclor 1254 (mg/kg)	0.068	NR	0.025	ND	ND
Total Lead (mg/kg)	ND	NR	13.8	ND	ND
Total Oil and Grease (mg/kg)	24900	NR	786	227	ND

Boring B5					
Sample ID.	B5A	B5B	B5C	B5D	B5E
Sample Depth (feet)	0-2	2-4	4-6	6-8	8-10
PCB Aroclor 1254 (mg/kg)	2.3	0.38	0.22	1.6	ND
Total Lead (mg/kg)	ND	ND	ND	ND	ND
Total Oil and Grease (mg/kg)	10400	256	659	ND	409

Analytical Methods: PCBs by USEPA Method 8082
 Lead by USEPA Method 6010
 Total Recoverable Oil and Grease by USEPA Method 6071B (modified)

- Notes:
- 1) Aroclor 1254 was the only PCB Aroclor detected for the soil samples submitted
 - 2) Monitoring well MW-8R was installed at the boring B1 location
 - 3) ND = parameter not detected at the reporting limit concentration
 - 4) NR = insufficient sample recovery for sample preparation

Table 2
Wabash Aluminum Alloys, LLC - Syracuse Facility
Corrective Action Management Unit Groundwater Monitoring Data

Parameters ->		Arsenic (total)	Arsenic (dissolved)	Barium (total)	Barium (dissolved)	Lead (total)	Lead (dissolved)	pH	Specific Conduct.	Aroclors						O&G		
										1016	1221	1232	1242	1248	1254		1260	
Units ->		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	Std. Units	us/cm	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l	
Class GA Standards ->		0.025	0.025	1.000	1.000	0.025	0.025	6.5-8.5	na	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	na	
B107	Jun-00	na	na	<0.3	<0.3	na	na	7.46	1,046	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.10	na	
	Jul-00	na	na	na	na	na	na	7.57	916	<0.05	<0.05	<0.05	<0.05	<0.05	0.086	<0.05	na	
	Aug-00	na	na	na	na	na	na	7.81	920	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Sep-00	na	na	na	na	na	na	7.34	980	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Oct-00	na	na	na	na	na	na	7.68	834	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Nov-00	na	na	na	na	na	na	7.87	640	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Feb-01	na	na	na	na	na	na	7.71	608	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Apr-01	na	na	na	na	na	na	7.82	960	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	May-01	na	na	na	na	na	na	7.63	1,107	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	0.3	0.3	na	na	na	na	na	na	na	na	na	na	na	na	na
Sep-02	na	na	0.31	0.34	na	na	7.44	947	na	na	na	na	na	na	na	na	na	
B108	Jul-00	na	na	na	na	na	na	7.21	2,620	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Aug-00	na	na	na	na	na	na	7.33	2,750	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Sep-00	na	na	na	na	0.002	0.001	7.27	2,510	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Oct-00	na	na	na	na	na	na	7.26	2,520	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Nov-00	na	na	na	na	na	na	7.00	2,210	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	Dec-00	na	na	na	na	0.004	<0.001	7.22	2,180	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jan-01	na	na	na	na	na	na	7.19	2,176	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Feb-01	na	na	na	na	na	na	7.74	2,110	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	<0.001	<0.001	7.01	2,100	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Apr-01	na	na	na	na	na	na	6.98	2,350	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	May-01	na	na	na	na	na	na	7.01	1,680	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	0.7	0.5	na	na	na	na	na	na	na	na	na	na	na	na	na
Sep-02	na	na	0.73	0.78	na	na	7.08	254	na	na	na	na	na	na	na	na	na	
B280**	Jun-98	<0.003	0.0036	na	na	0.0036	<0.002	7.06	801	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	
	1999	<0.01	<0.01	na	na	0.089	<0.01	6.24	893	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	na	
	Jun-00	0.004	0.004	na	na	0.002	0.002	6.86	1,056	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na	

Table 2
Wabash Aluminum Alloys, LLC - Syracuse Facility
Corrective Action Management Unit Groundwater Monitoring Data

Parameters ->		Arsenic (total)	Arsenic (dissolved)	Barium (total)	Barium (dissolved)	Lead (total)	Lead (dissolved)	pH	Specific Conduct.	Aroclors						O&G	
										1016	1221	1232	1242	1248	1254		1260
Units ->		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	Std. Units	us/cm	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l
Class GA Standards ->		0.025	0.025	1.000	1.000	0.025	0.025	6.5-8.5	na	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	na
B291**	Sep-00	na	na	na	na	0.007	0.001	7.31	877	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.001	0.001	7.24	848	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.003	<0.001	7.01	752	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	0.012	<0.010	na	na	<0.001	<0.001	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-02	<0.010	<0.010	na	na	0.002	<0.001	7.4	1,134	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
B281	Jun-98	0.0059	<0.003	na	na	<0.002	<0.002	6.53	2,690	na	na	na	na	na	na	na	na
	1999	<0.01	<0.01	na	na	<0.01	<0.01	7.47	3,120	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	na
	Jun-00	0.060	0.001	<0.3	<0.3	<0.001	<0.001	6.72	2,630	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	<0.001	<0.001	7.02	2,560	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	<0.001	<0.001	7.28	1,956	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	<0.001	<0.001	7.24	2,020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	0.037	0.017	na	na	<0.001	<0.001	na	na	na	na	na	na	na	na	na	na
	Sep-02	0.023	<0.010	<0.03	<0.03	<0.001	<0.001	6.86	3000	na	na	na	na	na	na	na	na
B290	Jun-98	na	na	na	na	41.9	<0.02	6.94	2,180	na	na	na	na	na	na	na	na
	1999	na	na	na	na	<0.01	0.72	7.24	2,370	na	na	na	na	na	na	na	na
	Jun-00	na	na	na	na	0.045	<0.001	6.87	2,410	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	0.050	<0.001	7.42	2,120	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.092	<0.001	7.01	1,784	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.007	<0.001	7.01	1,693	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	na	na	0.048	<0.001	na	na	na	na	na	na	na	na	na	na
	Sep-02	na	na	na	na	0.008	<0.001	6.93	2,130	na	na	na	na	na	na	na	na
B401	Jun-98	na	na	na	na	0.0124	<0.002	na	na	na	na	na	na	na	na	na	na
	1999	na	na	na	na	0.061	<0.01	6.69	1,510	na	na	na	na	na	na	na	na
	Jun-00	na	na	na	na	0.044	0.003	6.78	1,275	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	0.35	0.002	7.29	1,159	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.059	0.007	7.44	1,180	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.033	<0.001	7.26	810	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	na	na	0.21	<0.001	na	na	na	na	na	na	na	na	na	na
	Sep-02	na	na	na	na	0.06	0.002	7.48	644	na	na	na	na	na	na	na	na

Table 2
Wabash Aluminum Alloys, LLC - Syracuse Facility
Corrective Action Management Unit Groundwater Monitoring Data

Parameters ->		Arsenic (total)	Arsenic (dissolved)	Barium (total)	Barium (dissolved)	Lead (total)	Lead (dissolved)	pH	Specific Conduct.	Aroclors						O&G	
Units ->		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	Std. Units	us/cm	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l
Class GA Standards ->		0.025	0.025	1.000	1.000	0.025	0.025	6.5-8.5	na	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	0.09*	na
B402	Jun-98	na	na	na	na	0.0064	0.0041	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	1999	na	na	na	na	0.29	<0.01	8.12	3,350	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	na
	Jun-00	na	na	na	na	0.007	0.003	8.45	2,820	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	0.007	0.002	8.13	1,374	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.004	0.002	8.75	1,785	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.003	0.004	7.95	1,480	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	na	na	<0.001	<0.001	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-02	na	na	na	na	0.004	<0.001	8.44	2,260	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
B403	Jun-98	na	na	na	na	28.4	<0.002	7.21	1,280	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	1999	na	na	na	na	0.24	0.01	7.36	710	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	na
	Jun-00	na	na	na	na	0.010	0.004	7.35	402	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	0.007	0.003	8.41	520	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.002	0.002	8.12	970	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.004	0.003	7.54	415	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	na	na	<0.001	<0.001	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-02	na	na	na	na	0.005	<0.001	7.11	456	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
B404	Jun-98	na	na	na	na	0.0071	0.0027	10.55	2,380	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	1999	na	na	na	na	<0.01	<0.01	6.72	1,740	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	na
	Jun-00	na	na	na	na	0.004	0.002	6.97	1,573	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-00	na	na	na	na	0.002	0.002	7.32	1,114	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Dec-00	na	na	na	na	0.003	<0.001	7.47	589	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Mar-01	na	na	na	na	0.003	0.003	7.54	610	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Jun-02	na	na	na	na	<0.001	<0.001	na	na	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
	Sep-02	na	na	na	na	0.003	<0.001	7.09	731	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	na
MW-8R ⁺	Sep-02	na	na	na	na	0.004	0.001	9.21	933	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<5

* applies to the sum of these substances

** Monitoring well B291 replaced monitoring well B280 in this program in September 2000.

na - Not Analyzed or Not Applicable

Shading denotes concentrations above Class GA Groundwater Quality Standards.

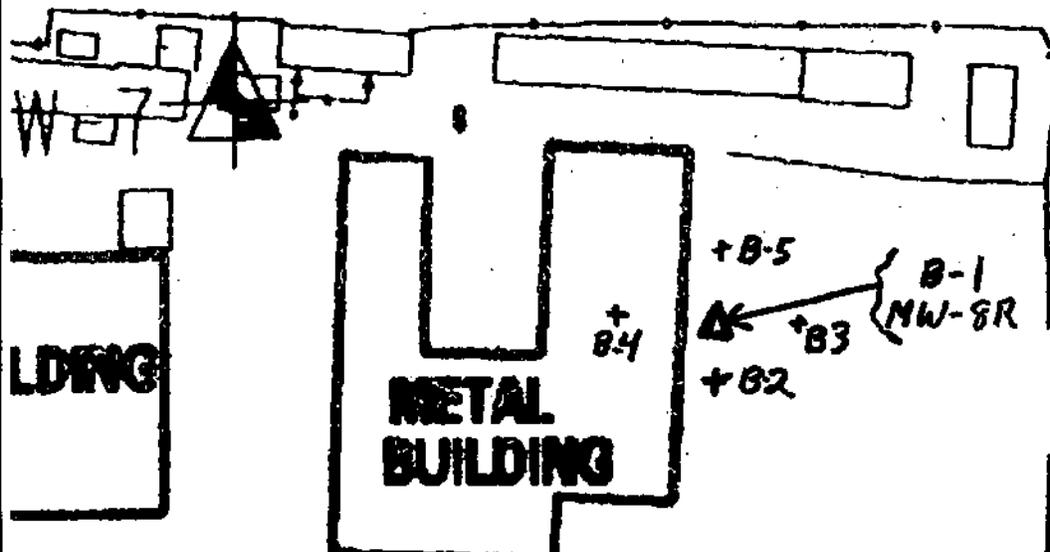
+ MW-8R was installed in September 2002 and added to the CAMU monitoring at that time

FIGURE 1

Site Sketch

MIDLER PARK
DRIVE

B-286



Approximate Locations
of Soil Borings and
Replacement Monitoring
Well MW-8R

ATTACHMENT A
Analytical Laboratory Data Sheets
Soil Boring Samples

SEVERN

TRENT

SERVICES

STL Buffalo

10 Hazelwood Drive
Suite 106
Amherst, NY 14228

Tel: 716 691 2600
Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A02-8818

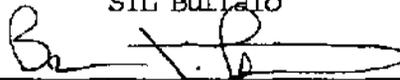
STL Project#: NY2A8965

Site Name: C & S Engineers - Wabash Aluminum Alloys Site

Task: C & S - Wabash Aluminum Alloys Site

Mr. Rory Woodmansee
C & S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, NY 13212

STL Buffalo



Brian J. Fischer
Project Manager

09/17/2002

This report contains 44 pages which are individually numbered.

000001

SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
		<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A2881801	B1A	09/05/2002	08:45	09/06/2002	09:45
A2881802	B1B	09/05/2002	08:50	09/06/2002	09:45
A2881803	B1C	09/05/2002	08:50	09/06/2002	09:45
A2881804	B1D	09/05/2002	08:55	09/06/2002	09:45
A2881805	B1E	09/05/2002	09:00	09/06/2002	09:45
A2881806	B2A	09/05/2002	09:15	09/06/2002	09:45
A2881807	B2B	09/05/2002	09:20	09/06/2002	09:45
A2881808	B2C	09/05/2002	09:25	09/06/2002	09:45
A2881809	B2D	09/05/2002	09:30	09/06/2002	09:45
A2881810	B2E	09/05/2002	09:35	09/06/2002	09:45
A2881811	B3A	09/05/2002	09:40	09/06/2002	09:45
A2881812	B3B	09/05/2002	09:45	09/06/2002	09:45
A2881813	B3C	09/05/2002	09:50	09/06/2002	09:45
A2881814	B3D	09/05/2002	09:55	09/06/2002	09:45
A2881815	B3E	09/05/2002	10:00	09/06/2002	09:45
A2881816	B4A	09/05/2002	10:10	09/06/2002	09:45
A2881817	B4C	09/05/2002	10:20	09/06/2002	09:45
A2881818	B4D	09/05/2002	10:25	09/06/2002	09:45
A2881819	B4E	09/05/2002	10:30	09/06/2002	09:45
A2881820	B5A	09/05/2002	10:45	09/06/2002	09:45
A2881821	B5B	09/05/2002	10:50	09/06/2002	09:45
A2881822	B5C	09/05/2002	10:55	09/06/2002	09:45
A2881823	B5D	09/05/2002	11:00	09/06/2002	09:45
A2881824	B5E	09/05/2002	11:05	09/06/2002	09:45

METHODS SUMMARY

Job#: A02-8818STL Project#: NY2A8965Site Name: C & S Engineers - Wabash Aluminum Alloys Site

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S	SW8463 8082
Lead - Total	SW8463 6010
Total Recoverable Oil & Grease	SW8463 9071

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A02-8818STL Project#: NY2A8965Site Name: C & S Engineers - Wabash Aluminum Alloys SiteGeneral Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A02-8818

Sample Cooler(s) were received at the following temperature(s); 2 @ 2 °C
All samples were received in good condition.

GC Extractable Data

For Method 8082 (PCB), both surrogate recoveries were low for sample B1B. The sample was re-prepped within extraction holding time and with compliant surrogate and spike recoveries. Only the re-extracted analysis has been reported for this sample.

Several samples analyzed for Method 8082 required dilution prior to analysis due to the high concentration of target analytes. The surrogates were diluted out of many of the sample extracts.

The recovery of surrogate Decachlorobiphenyl for the Method 8082 analysis of sample B1D was outside of established quality control limits. The recovery of surrogate Tetrachloro-m-xylene was within quality control limits; no corrective action was required.

Metals Data

The recovery of samples B5A Matrix Spike and B5A Matrix Spike Duplicate exhibited results below quality control limits for Lead. However, the LCS was compliant.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

000005

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
B1A	A2881801	8082	20.00	008
B1B	A2881802RE	8082	4.00	008
B1C	A2881803	8082	20.00	008
B1D	A2881804	8082	5.00	008
B1E	A2881805	8082	20.00	008
B2A	A2881806	8082	40.00	008
B2B	A2881807	8082	50.00	008
B2C	A2881808	8082	40.00	008
B2D	A2881809	8082	4.00	008
B3A	A2881811	8082	50.00	008
B3B	A2881812	8082	20.00	008
B3C	A2881813	8082	5.00	008
B5A	A2881820	8082	100.00	008
B5B	A2881821	8082	2.00	008
B5E	A2881824	8082	10.00	008

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - non-target compounds (TICS) exceeded 5X the total response of one of the Internal Standards
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- ! Indicates coelution.
- * Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance
- E Indicates a value estimated or not reported due to the presence of interferences
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- Indicates analysis is not within the quality control limits
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995

Sample Data Package

Date: 09/23/2002
Time: 09:45:01

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Rept: AN0326

Client ID Job No Sample Date		B1A A02-8818 09/05/2002		B1B A02-8818 09/05/2002		B1C A02-8818 09/05/2002		B1D A02-8818 09/05/2002	
Lab ID		A2881801	A2881802RE	A2881803	A2881804				
Analyte	Units	Sample Value	Reporting Limit						
Aroclor 1016	UG/KG	ND	370	ND	78	ND	390	ND	170
Aroclor 1221	UG/KG	ND	370	ND	78	ND	390	ND	170
Aroclor 1232	UG/KG	ND	370	ND	78	ND	390	ND	170
Aroclor 1242	UG/KG	ND	370	ND	78	ND	390	ND	170
Aroclor 1248	UG/KG	ND	370	ND	78	ND	390	ND	170
Aroclor 1254	UG/KG	2900	370	1100	78	15000	390	2200	170
Aroclor 1260	UG/KG	ND	370	ND	78	ND	390	ND	170
SURROGATE(S)									
Tetrachloro-m-xylene	%	0 D	32-148	94	32-148	0 D	32-148	35	32-148
Decachlorobiphenyl	%	0 D	36-153	92	36-153	0 D	36-153	30 *	36-153

Client ID Job No Sample Date		B1E A02-8818 09/05/2002		B2A A02-8818 09/05/2002		B2B A02-8818 09/05/2002		B2C A02-8818 09/05/2002	
Lab ID		A2881805	A2881806	A2881807	A2881808				
Analyte	Units	Sample Value	Reporting Limit						
Aroclor 1016	UG/KG	ND	370	ND	700	ND	1000	ND	750
Aroclor 1221	UG/KG	ND	370	ND	700	ND	1000	ND	750
Aroclor 1232	UG/KG	ND	370	ND	700	ND	1000	ND	750
Aroclor 1242	UG/KG	ND	370	ND	700	ND	1000	ND	750
Aroclor 1248	UG/KG	ND	370	ND	700	ND	1000	ND	750
Aroclor 1254	UG/KG	3400	370	19000	700	47000	1000	32000	750
Aroclor 1260	UG/KG	ND	370	ND	700	ND	1000	ND	750
SURROGATE(S)									
Tetrachloro-m-xylene	%	0 D	32-148						
Decachlorobiphenyl	%	0 D	36-153						

NA = Not Applicable ND = Not Detected

STL Buffalo 0208119

000008

Date: 09/23/2002
Time: 09:45:01

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Rept: AN0326

Client ID		B2D		B2E		B3A		B3B	
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Lab ID		A2881809		A2881810		A2881811		A2881812	
Analyte	Units	Sample Value	Reporting Limit						
Aroclor 1016	UG/KG	ND	76	ND	18	ND	900	ND	360
Aroclor 1221	UG/KG	ND	76	ND	18	ND	900	ND	360
Aroclor 1232	UG/KG	ND	76	ND	18	ND	900	ND	360
Aroclor 1242	UG/KG	ND	76	ND	18	ND	900	ND	360
Aroclor 1248	UG/KG	ND	76	ND	18	ND	900	ND	360
Aroclor 1254	UG/KG	1200	76	450	18	4800	900	2800	360
Aroclor 1260	UG/KG	ND	76	ND	18	ND	900	ND	360
SURROGATE(S)									
Tetrachloro-m-xylene	%	50	32-148	85	32-148	0 D	32-148	0 D	32-148
Decachlorobiphenyl	%	38	36-153	103	36-153	0 D	36-153	0 D	36-153

Client ID		B3C		B3D		B3E		B4A	
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Lab ID		A2881813		A2881814		A2881815		A2881816	
Analyte	Units	Sample Value	Reporting Limit						
Aroclor 1016	UG/KG	ND	100	ND	20	ND	19	ND	19
Aroclor 1221	UG/KG	ND	100	ND	20	ND	19	ND	19
Aroclor 1232	UG/KG	ND	100	ND	20	ND	19	ND	19
Aroclor 1242	UG/KG	ND	100	ND	20	ND	19	ND	19
Aroclor 1248	UG/KG	ND	100	ND	20	ND	19	ND	19
Aroclor 1254	UG/KG	1200	100	440	20	37	19	68	19
Aroclor 1260	UG/KG	ND	100	ND	20	ND	19	ND	19
SURROGATE(S)									
Tetrachloro-m-xylene	%	55	32-148	84	32-148	84	32-148	70	32-148
Decachlorobiphenyl	%	52	36-153	106	36-153	105	36-153	93	36-153

600000

NA = Not Applicable ND = Not Detected

STL Buffalo 208120

Date: 09/23/2002
Time: 09:45:01

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Rept: AN0326

Client ID Job No Sample Date		Lab ID		B4C A02-8818 09/05/2002		A2881817		B4D A02-8818 09/05/2002		A2881818		B4E A02-8818 09/05/2002		A2881819		B5A A02-8818 09/05/2002		A2881820	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
Aroclor 1221	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
Aroclor 1232	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
Aroclor 1242	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
Aroclor 1248	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
Aroclor 1254	UG/KG	25	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	2300	1900	ND	1900
Aroclor 1260	UG/KG	ND	20	ND	18	ND	18	ND	18	ND	18	ND	18	ND	18	ND	1900	ND	1900
SURROGATE(S)																			
Tetrachloro-m-xylene	%	88	32-148	84	32-148	84	32-148	84	32-148	84	32-148	84	32-148	0 D	32-148	0 D	32-148	0 D	32-148
Decachlorobiphenyl	%	108	36-153	102	36-153	104	36-153	104	36-153	104	36-153	104	36-153	0 D	36-153	0 D	36-153	0 D	36-153

Client ID Job No Sample Date		Lab ID		B5B A02-8818 09/05/2002		A2881821		B5C A02-8818 09/05/2002		A2881822		B5D A02-8818 09/05/2002		A2881823		B5E A02-8818 09/05/2002		A2881824	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
Aroclor 1221	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
Aroclor 1232	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
Aroclor 1242	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
Aroclor 1248	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
Aroclor 1254	UG/KG	380	38	220	19	ND	19	ND	19	ND	19	ND	19	ND	19	1600	180	ND	180
Aroclor 1260	UG/KG	ND	38	ND	19	ND	19	ND	19	ND	19	ND	19	ND	19	ND	180	ND	180
SURROGATE(S)																			
Tetrachloro-m-xylene	%	78	32-148	84	32-148	86	32-148	86	32-148	86	32-148	86	32-148	0 D	32-148	0 D	32-148	0 D	32-148
Decachlorobiphenyl	%	94	36-153	102	36-153	104	36-153	104	36-153	104	36-153	104	36-153	0 D	36-153	0 D	36-153	0 D	36-153

Date: 09/23/2002
Time: 09:45:08

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
TOTAL METALS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	B1A A02-8818 09/05/2002	A2881801	B1B A02-8818 09/05/2002	A2881802	B1C A02-8818 09/05/2002	A2881803	B1D A02-8818 09/05/2002	A2881804
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	7.8	5.7	6.3	6.1	ND	5.6	ND	10.8

Client ID Job No Sample Date	Lab ID	B1E A02-8818 09/05/2002	A2881805	B2A A02-8818 09/05/2002	A2881806	B2B A02-8818 09/05/2002	A2881807	B2C A02-8818 09/05/2002	A2881808
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	ND	5.6	45.3	5.1	ND	6.3	ND	5.8

Client ID Job No Sample Date	Lab ID	B2D A02-8818 09/05/2002	A2881809	B2E A02-8818 09/05/2002	A2881810	B3A A02-8818 09/05/2002	A2881811	B3B A02-8818 09/05/2002	A2881812
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	ND	5.7	ND	5.4	32.0	5.6	31.3	5.4

Client ID Job No Sample Date	Lab ID	B3C A02-8818 09/05/2002	A2881813	B3D A02-8818 09/05/2002	A2881814	B3E A02-8818 09/05/2002	A2881815	B4A A02-8818 09/05/2002	A2881816
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	ND	6.3	ND	6.2	ND	5.8	ND	5.7

00000000

NA = Not Applicable ND = Not Detected

Date: 09/23/2002
 Time: 09:45:08

C & S Engineers - Wabash Aluminum Alloys Site
 C & S - Wabash Aluminum Alloys Site
 TOTAL METALS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	B4C A02-8818 09/05/2002	A2881817	B4D A02-8818 09/05/2002	A2881818	B4E A02-8818 09/05/2002	A2881819	B5A A02-8818 09/05/2002	A2881820
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	13.8	5.9	ND	5.6	ND	5.5	ND	5.7

Client ID Job No Sample Date	Lab ID	B5B A02-8818 09/05/2002	A2881821	B5C A02-8818 09/05/2002	A2881822	B5D A02-8818 09/05/2002	A2881823	B5E A02-8818 09/05/2002	A2881824
Analyte	Units	Sample Value	Reporting Limit						
Lead - Total	MG/KG	ND	5.5	ND	5.7	ND	5.8	ND	5.4

000013

NA = Not Applicable ND = Not Detected

Date: 09/23/2002
Time: 14:33:39

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID	Lab ID	B1A	A2881801	B1B	A2881802	B1C	A2881803	B1D	A2881804
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	466	100	2310	100	9040	100	ND	100

Client ID	Lab ID	B1E	A2881805	B2A	A2881806	B2B	A2881807	B2C	A2881808
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	1020	100	2290	100	4780	100	16300	100

Client ID	Lab ID	B2D	A2881809	B2E	A2881810	B3A	A2881811	B3B	A2881812
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	469	100	473	100	1240	100	4880	100

Client ID	Lab ID	B3C	A2881813	B3D	A2881814	B3E	A2881815	B4A	A2881816
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	3210	100	734	100	347	100	24900	100

NA = Not Applicable ND = Not Detected

STL Buffer 09L208124

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D 09/23
Time: 14:33:39

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID	Lab ID	B4C	A2881817	B4D	A2881818	B4E	A2881819	B5A	A2881820
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	786	100	227	100	ND	100	10400	100

Client ID	Lab ID	B5B	A2881821	B5C	A2881822	B5D	A2881823	B5E	A2881824
Job No		A02-8818		A02-8818		A02-8818		A02-8818	
Sample Date		09/05/2002		09/05/2002		09/05/2002		09/05/2002	
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	256	100	659	100	ND	100	409	100

IA = Not Applicable ND = Not Detected

000014

Chronology and QC
Summary Package

Date: 09/23/2002
 Time: 09:45:32

C & S Engineers - Wabash Aluminum Alloys Site
 C & S - Wabash Aluminum Alloys Site
 C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Rept: AN0326

Client ID		Method Blank		Method Blank		Method Blank		Method Blank	
Job No	Lab ID	A02-8818	A2B0865803	A02-8818	A2B0865903	A02-8818	A2B0869903	A02-8818	A2B0888203
Analyte	Units	Sample Value	Reporting Limit						
Aroclor 1016	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1221	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1232	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1242	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1248	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1254	UG/KG	ND	17	ND	16	ND	17	ND	17
Aroclor 1260	UG/KG	ND	17	ND	16	ND	17	ND	17
SURROGATE(S)									
Tetrachloro-m-xylene	%	68	32-148	88	32-148	77	32-148	86	32-148
Decachlorobiphenyl	%	90	36-153	104	36-153	98	36-153	106	36-153

NA = Not Applicable ND = Not Detected

STL Buff 09/23/2002

000000

Date: 09/23/2002
Time: 09:45:32

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Rept: AN0326

Client ID Job No Sample Date		Lab ID		Matrix Spike Blank A02-8818 A2B0865801		Matrix Spike Blank A02-8818 A2B0865901		Matrix Spike Blank A02-8818 A2B0869901		Matrix Spike Blank A02-8818 A2B0888201	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1221	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1232	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1242	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1248	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1254	UG/KG	150	17	160	17	150	17	150	17	170	17
Aroclor 1260	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
SURROGATE(S)											
Tetrachloro-m-xylene	%	76	32-148	86	32-148	79	32-148	86	32-148	86	32-148
Decachlorobiphenyl	%	89	36-153	102	36-153	94	36-153	105	36-153	105	36-153

Client ID Job No Sample Date		Lab ID		Matrix Spike Blk Dup A02-8818 A2B0865802		Matrix Spike Blk Dup A02-8818 A2B0865902		Matrix Spike Blk Dup A02-8818 A2B0869902		Matrix Spike Blk Dup A02-8818 A2B0888202	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1221	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1232	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1242	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1248	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
Aroclor 1254	UG/KG	150	17	170	17	170	17	170	17	170	17
Aroclor 1260	UG/KG	ND	17	ND	17	ND	17	ND	17	ND	17
SURROGATE(S)											
Tetrachloro-m-xylene	%	76	32-148	89	32-148	84	32-148	85	32-148	85	32-148
Decachlorobiphenyl	%	92	36-153	107	36-153	105	36-153	106	36-153	106	36-153

NA = Not Applicable ND = Not Detected

STL Buffalo 208128

20000

Date: 09/23/2002
Time: 09:45:38

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
TOTAL METALS

Rept: AN0326

Client ID Job No Sample Date		Method Blank A02-8818 A2B0874802		Method Blank A02-8818 A2B0874902					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	ND	5.0	ND	5.0	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo 208129

000019

Date: 09/23/2002
Time: 09:45:38

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
TOTAL METALS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	B5A A02-8818 09/05/2002	A2881820MS	B5A A02-8818 09/05/2002	A2881820SD	LCS CLP Soils A02-8818	A280874801	LCS CLP Soils A02-8818	A280874901
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	28.3	5.8	28.1	5.8	56.5	5.2	50.9	5.0

000019

Date: 09/23/2002
Time: 09:45:43

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID Job No Sample Date		Lab ID	Method Blank A02-8818 A2B0889802						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Total Recoverable Oil & Grease	MG/KG	ND	100	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo 208131

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Date: 09/23/2002
Time: 09:45:43

C & S Engineers - Wabash Aluminum Alloys Site
C & S - Wabash Aluminum Alloys Site
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID		LCS							
Job No	Lab ID	A02-8818	A280889801						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit						
Total Recoverable Oil & Grease	MG/KG	ND	100	NA		NA		NA	

NA = Not Applicable ND = Not Detected

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Date : 09/23/2002 09:46:02
Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank Matrix Spike Blank Matrix Spike Blk Dup
Lab Sample ID: A2B0865803 A2B0865801 A2B0865802

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			QC LIMITS		
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg	% RPD	RPD	REC.
C&S - METHOD 8082 - POLYCHLORINATED BIPH Aroclor 1254	UG/KG	147	151	166	164	89	92	91	3	30.0	52-153

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* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Date : 09/23/2002 09:46:02
 Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank Matrix Spike Blank Matrix Spike Blk Dup
 Lab Sample ID: A280865903 A280865901 A280865902

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			QC LIMITS		
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg	% RPD	RPD	REC.
C&S - METHOD 8082 - POLYCHLORINATED BIPH Aroclor 1254	UG/KG	165	174	163	165	101	105	103	4	30.0	52-153

* Indicates Result is outside QC Limits
 NC = Not Calculated ND = Not Detected

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Date : 09/23/2002 09:46:02
 Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank
 Lab Sample ID: A2B0869903

Matrix Spike Blank
 A2B0869901

Matrix Spike Blk Dup
 A2B0869902

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			QC LIMITS		
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg	% RPD	RPD	REC.
C&S - METHOD 8082 - POLYCHLORINATED BIPH Aroclor 1254	UG/KG	148	170	166	166	89	102	96	14	30.0	52-153

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* Indicates Result is outside QC Limits
 NC = Not Calculated ND = Not Detected

Date : 09/23/2002 09:46:02
Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank Matrix Spike Blank Matrix Spike Blk Dup
Lab Sample ID: A2B0888203 A2B0888201 A2B0888202

Analyte	Units of Measure	Concentration				% Recovery			QC LIMITS		
		Spike Blank	Spike Blank Dup	S8	S8D	S8	S8D	Avg	% RPD	RPD	REC.
C&S - METHOD 8082 - POLYCHLORINATED BIPH Aroclor 1254	UG/KG	167	169	164	164	101	103	102	2	30.0	52-153

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

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Date : 09/23/2002 09:46:07
 Job No: A02-8818

C & S ENGINEERS
 SAMPLE DATE 09/05/2002

Rept: AN0364

Client Sample ID: B5A
 Lab Sample ID: A2881820

B5A
 A2881820MS

B5A
 A2881820SD

Analyte	Units of Measure	Sample	Concentration			Spike Amount			% Recovery			QC LIMITS	
			Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg	% RPD	RPD	REC.	
TOTAL METALS ANALYSIS C&S - TOTAL LEAD - S	MG/KG	0.215	28.27	28.08	52.9	52.9	53 *	52 *	53	0.	20.0	80-120	

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* Indicates Result is outside QC Limits
 NC = Not Calculated ND = Not Detected

Date : 09/23/2002 09:46:07
Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank
Lab Sample ID: A2B0874802

LCS CLP Soils
A2B0874801

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank Spike	Spike Amount		
TOTAL METALS ANALYSIS C&S - TOTAL LEAD - S	MG/KG	56.51	52.9	106	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

20000000

Date : 09/23/2002 09:46:07
Job No: A02-8818

C & S ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank
Lab Sample ID: A280874902

LCS CLP Soils
A280874901

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank Spike	Spike Amount		
TOTAL METALS ANALYSIS C&S - TOTAL LEAD - S	MG/KG	50.89	52.9	96	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

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Client Sample ID: Method Blank LCS
Lab Sample ID: A2B0889802 A2B0889801

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank Spike	Spike Amount		
WET CHEMISTRY ANALYSIS C&S - METHOD 9071 - TOTAL RECOVERABLE	MG/KG	82500	84000	98	90-110

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

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C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	B1A A02-8818 A2881801	B1B A02-8818 A2881802RE	B1C A02-8818 A2881803	B1D A02-8818 A2881804	B1E A02-8818 A2881805
Sample Date	09/05/2002 08:45	09/05/2002 08:50	09/05/2002 08:50	09/05/2002 08:55	09/05/2002 09:00
Received Date	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45
Extraction Date	09/06/2002 16:00	09/13/2002 07:00	09/06/2002 16:00	09/06/2002 16:00	09/09/2002 07:00
Analysis Date	09/09/2002 14:55	09/16/2002 14:20	09/10/2002 23:27	09/09/2002 17:02	09/10/2002 13:46
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW
Dilution Factor	20.0	4.0	20.0	5.0	20.0
Sample wt/vol	30.39 GRAMS	30.59 GRAMS	30.19 GRAMS	30.52 GRAMS	30.88 GRAMS
% Dry	91.01	84.91	87.08	47.98	88.26

C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	B2A A02-8818 A2881806	B2B A02-8818 A2881807	B2C A02-8818 A2881808	B2D A02-8818 A2881809	B2E A02-8818 A2881810
Sample Date	09/05/2002 09:15	09/05/2002 09:20	09/05/2002 09:25	09/05/2002 09:30	09/05/2002 09:35
Received Date	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45
Extraction Date	09/06/2002 16:00	09/06/2002 16:00	09/06/2002 16:00	09/06/2002 16:00	09/09/2002 07:00
Analysis Date	09/10/2002 23:53	09/09/2002 17:52	09/11/2002 00:18	09/09/2002 18:43	09/10/2002 15:27
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	SOIL LOW				
Dilution Factor	40.0	50.0	40.0	4.0	1.0
Sample wt/vol	30.15 GRAMS	30.31 GRAMS	30.8 GRAMS	30.41 GRAMS	30.33 GRAMS
% Dry	96.02	82.14	87.80	88.81	91.79

000001

C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	B3A A02-8818 A2881811	B3B A02-8818 A2881812	B3C A02-8818 A2881813	B3D A02-8818 A2881814	B3E A02-8818 A2881815
Sample Date	09/05/2002 09:40	09/05/2002 09:45	09/05/2002 09:50	09/05/2002 09:55	09/05/2002 10:00
Received Date	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45
Extraction Date	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00
Analysis Date	09/10/2002 15:52	09/10/2002 16:18	09/10/2002 16:43	09/10/2002 17:59	09/10/2002 18:24
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	SOIL LOW				
Dilution Factor	50.0	20.0	5.0	1.0	1.0
Sample wt/vol	30.49 GRAMS	30.11 GRAMS	30.48 GRAMS	30.77 GRAMS	30.6 GRAMS
% Dry	92.33	92.89	81.29	83.74	87.87

C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	B4A A02-8818 A2881816	B4C A02-8818 A2881817	B4D A02-8818 A2881818	B4E A02-8818 A2881819	B5A A02-8818 A2881820
Sample Date	09/05/2002 10:10	09/05/2002 10:20	09/05/2002 10:25	09/05/2002 10:30	09/05/2002 10:45
Received Date	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45
Extraction Date	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00
Analysis Date	09/10/2002 18:49	09/10/2002 19:14	09/10/2002 19:40	09/10/2002 20:05	09/10/2002 20:30
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	SOIL LOW				
Dilution Factor	1.0	1.0	1.0	1.0	100.0
Sample wt/vol	30.88 GRAMS	30.85 GRAMS	30.95 GRAMS	30.77 GRAMS	30.71 GRAMS
% Dry	88.58	82.99	90.35	89.77	86.32

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C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	B5B A02-8818 A2881821	B5C A02-8818 A2881822	B5D A02-8818 A2881823	B5E A02-8818 A2881824	
Sample Date	09/05/2002 10:50	09/05/2002 10:55	09/05/2002 11:00	09/05/2002 11:05	
Received Date	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	09/06/2002 09:45	
Extraction Date	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	09/09/2002 07:00	
Analysis Date	09/10/2002 20:56	09/10/2002 21:21	09/10/2002 22:37	09/10/2002 23:02	
Extraction HT Met?	YES	YES	YES	YES	
Analytical HT Met?	YES	YES	YES	YES	
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW	
Dilution Factor	2.0	1.0	1.0	10.0	
Sample wt/vol	30.72 GRAMS	30.8 GRAMS	30.47 GRAMS	30.1 GRAMS	
% Dry	88.14	87.67	86.22	92.05	

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C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	Method Blank A02-8818 A2B0865803	Method Blank A02-8818 A2B0865903	Method Blank A02-8818 A2B0869903	Method Blank A02-8818 A2B0888203	
Sample Date					
Received Date					
Extraction Date	09/06/2002 16:00	09/09/2002 07:00	09/09/2002 07:00	09/13/2002 07:00	
Analysis Date	09/09/2002 12:37	09/09/2002 15:02	09/10/2002 08:17	09/16/2002 13:54	
Extraction HT Met?	-	-	-	-	
Analytical HT Met?	-	-	-	-	
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW	
Dilution Factor	1.0	1.0	1.0	1.0	
Sample wt/vol	30.52 GRAMS	30.82 GRAMS	30.26 GRAMS	30.18 GRAMS	
% Dry	100.00	100.00	100.00	100.00	

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C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A02-8818 A280865801	Matrix Spike Blank A02-8818 A280865901	Matrix Spike Blank A02-8818 A280869901	Matrix Spike Blank A02-8818 A280888201	Matrix Spike Blk Dup A02-8818 A280865802
Sample Date					
Received Date					
Extraction Date	09/06/2002 16:00	09/09/2002 07:00	09/09/2002 07:00	09/13/2002 07:00	09/06/2002 16:00
Analysis Date	09/09/2002 11:46	09/09/2002 14:11	09/10/2002 07:27	09/16/2002 13:04	09/09/2002 12:12
Extraction HT Met?	-	-	-	-	-
Analytical HT Met?	-	-	-	-	-
Sample Matrix	SOIL LOW				
Dilution Factor	1.0	1.0	1.0	1.0	1.0
Sample wt/vol	30.07 GRAMS	30.54 GRAMS	30.03 GRAMS	30.31 GRAMS	30.42 GRAMS
% Dry	100.00	100.00	100.00	100.00	100.00

910000

C&S - METHOD 8082 - POLYCHLORINATED BIPHENYLS - S

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blk Dup A02-8818 A2B0865902	Matrix Spike Blk Dup A02-8818 A2B0869902	Matrix Spike Blk Dup A02-8818 A2B0888202		
Sample Date					
Received Date					
Extraction Date	09/09/2002 07:00	09/09/2002 07:00	09/13/2002 07:00		
Analysis Date	09/09/2002 14:36	09/10/2002 07:52	09/16/2002 13:29		
Extraction HT Met?	-	-	-		
Analytical HT Met?	-	-	-		
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW		
Dilution Factor	1.0	1.0	1.0		
Sample wt/vol	30.18 GRAMS	30.02 GRAMS	30.33 GRAMS		
% Dry	100.00	100.00	100.00		

NA = Not Applicable

400000

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A2881801	B1A	MG/KG	Lead - Total	6010	1.00	09/05/2002 08:45	09/06 09:45	NA	NA	09/12 18:36	Yes	SOIL
A2881802	B1B	MG/KG	Lead - Total	6010	1.00	09/05/2002 08:50	09/06 09:45	NA	NA	09/12 18:40	Yes	SOIL
A2881803	B1C	MG/KG	Lead - Total	6010	1.00	09/05/2002 08:50	09/06 09:45	NA	NA	09/12 18:44	Yes	SOIL
A2881804	B1D	MG/KG	Lead - Total	6010	1.00	09/05/2002 08:55	09/06 09:45	NA	NA	09/12 18:49	Yes	SOIL
A2881805	B1E	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:00	09/06 09:45	NA	NA	09/12 18:53	Yes	SOIL
A2881806	B2A	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:15	09/06 09:45	NA	NA	09/12 18:57	Yes	SOIL
A2881807	B2B	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:20	09/06 09:45	NA	NA	09/12 19:02	Yes	SOIL
A2881808	B2C	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:25	09/06 09:45	NA	NA	09/12 19:06	Yes	SOIL
A2881809	B2D	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:30	09/06 09:45	NA	NA	09/12 19:19	Yes	SOIL
A2881810	B2E	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:35	09/06 09:45	NA	NA	09/12 19:23	Yes	SOIL
A2881811	B3A	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:40	09/06 09:45	NA	NA	09/12 19:28	Yes	SOIL
A2881812	B3B	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:45	09/06 09:45	NA	NA	09/12 19:32	Yes	SOIL
A2881813	B3C	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:50	09/06 09:45	NA	NA	09/12 19:37	Yes	SOIL
A2881814	B3D	MG/KG	Lead - Total	6010	1.00	09/05/2002 09:55	09/06 09:45	NA	NA	09/12 19:41	Yes	SOIL
A2881815	B3E	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:00	09/06 09:45	NA	NA	09/12 19:45	Yes	SOIL
A2881816	B4A	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:10	09/06 09:45	NA	NA	09/12 19:50	Yes	SOIL
A2881817	B4C	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:20	09/06 09:45	NA	NA	09/12 19:54	Yes	SOIL
A2881818	B4D	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:25	09/06 09:45	NA	NA	09/12 19:58	Yes	SOIL
A2881819	B4E	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:30	09/06 09:45	NA	NA	09/12 20:11	Yes	SOIL
A2881820	B5A	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:45	09/06 09:45	NA	NA	09/12 20:16	Yes	SOIL
A2881821	B5B	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:50	09/06 09:45	NA	NA	09/20 08:18	Yes	SOIL
A2881822	B5C	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:55	09/06 09:45	NA	NA	09/20 08:22	Yes	SOIL
A2881823	B5D	MG/KG	Lead - Total	6010	1.00	09/05/2002 11:00	09/06 09:45	NA	NA	09/20 08:26	Yes	SOIL
A2881824	B5E	MG/KG	Lead - Total	6010	1.00	09/05/2002 11:05	09/06 09:45	NA	NA	09/20 08:31	Yes	SOIL

AHT = Analysis Holding Time Met
 THT = TCLP Holding Time Met
 NA = Not Applicable

STL Buffalo

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Date: 09/23/2002 09:40:53
 Jobno: A02-8818

C & S ENGINEERING
 QC CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A2881820MS	B5A	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:45	09/06 09:45	NA	NA	09/20 07:51	Yes	SOIL
A2881820SD	B5A	MG/KG	Lead - Total	6010	1.00	09/05/2002 10:45	09/06 09:45	NA	NA	09/20 07:56	Yes	SOIL
A280874802	Method Blank	MG/KG	Lead - Total	6010	1.00	-	- 09:45	NA	NA	09/20 07:43	Yes	SOIL
A280874902	Method Blank	MG/KG	Lead - Total	6010	1.00	-	- 09:45	NA	NA	09/20 08:09	Yes	SOIL
A280874801	LCS CLP Soils	MG/KG	Lead - Total	6010	1.00	-	- 09:45	NA	NA	09/20 07:47	Yes	SOIL
A280874901	LCS CLP Soils	MG/KG	Lead - Total	6010	1.00	-	- 09:45	NA	NA	09/20 08:13	Yes	SOIL

AHT = Analysis Holding Time Met
 THT = TCLP Holding Time Met
 NA = Not Applicable

STL Buffalo

FOIL208150

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Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A2881801	B1A	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 08:45	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881802	B1B	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 08:50	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881803	B1C	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 08:50	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881804	B1D	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 08:55	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881805	B1E	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:00	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881806	B2A	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:15	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881807	B2B	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:20	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881808	B2C	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:25	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881809	B2D	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:30	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881810	B2E	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:35	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881811	B3A	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:40	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881812	B3B	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:45	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881813	B3C	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:50	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881814	B3D	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 09:55	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881815	B3E	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:00	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881816	B4A	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:10	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881817	B4C	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:20	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881818	B4D	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:25	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881819	B4E	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:30	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881820	B5A	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:45	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881821	B5B	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:50	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881822	B5C	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 10:55	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881823	B5D	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 11:00	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2881824	B5E	MG/KG	Total Recoverable Oil & Grease	9071	1.00	09/05/2002 11:05	09/06 09:45	NA	NA	09/13 07:00	Yes	SOIL

HT = Analysis Holding Time Met
 HT = TCLP Holding Time Met
 A = Not Applicable

STL Buffalo

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Date: 09/20/09
Jobno: A02-8818

L & S ENGINEERING
QC CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A2B0889802	Method Blank	MG/KG	Total Recoverable Oil & Grease	9071	1.00	-	- 09:45	NA	NA	09/13 07:00	Yes	SOIL
A2B0889801	LCS	MG/KG	Total Recoverable Oil & Grease	9071	1.00	-	- 09:45	NA	NA	09/13 07:00	Yes	SOIL

HT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

0000
STL Buffalo

Chain of Custody

Chain of Custody Record

SEVERN
TRENT
SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (1200)

Client: **C&S Engineers, Inc. (Wabash)** Project Manager: **Rory Woodmansee** Date: **9/05/02** Chain of Custody Number: **099028**
 Address: **Syracuse Hancock Intl. Airport** Telephone Number (Area Code)/Fax Number: **315 455 2000 ph 455-9667 Fax** Lab Number: _____ Page **1** of **2**

City: **Syracuse** State: **NY** Zip Code: **13212** Site Contact: _____ Lab Contact: _____
 Project Name and Location (State): **Wabash Aluminum Alloys, East Syracuse** Carrier/Waybill Number: _____
 Contract/Purchase Order/Quote No.: _____

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis	Special Instructions/ Conditions of Receipt					
			Az	Agnes	Soil	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc			NaOH				
B1A	9/5/02	0845				X	2												
B1B		0850					2												
B1C		0850					2												
B1D		0855					2												
B1E		0900					2												
B2A		0915					1												
B2B		0920					2												
B2C		0925					2												
B2D		0930					2												
B2E		0935					2												
B3A		0940					2												
B3B		0945					2												

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify)

1. Relinquished By: **Rory Woodmansee** Date: **09/05/02** Time: **1500** 1. Received By: **[Signature]** Date: **9-06-02** Time: **09:45**
 2. Relinquished By: _____ Date: _____ Time: _____ 2. Received By: _____ Date: _____ Time: _____
 3. Relinquished By: _____ Date: _____ Time: _____ 3. Received By: _____ Date: _____ Time: _____

Comments: **2 @ 2**

Chain of Custody Record

**SEVERN
TRENT
SERVICES**

Severn Trent Laboratories, Inc.

STL-4124 (1200)

Client C&S Engineers, Inc. (Wabash)	Project Manager Rory Woodmansee	Date 9/05/02	Chain of Custody Number 099027
Address Syracuse Hancock Intl. Airport	Telephone Number (Area Code)/Fax Number 315 455-2000 PL 455-9667 FAX	Lab Number	Page 2 of 2

City Syracuse	State NY	Zip Code 13212	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Project Name and Location (State) Wabash Al. Alloys, East Syracuse			Carrier/Waybill Number			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis	Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH				
B3C	9/5/02	0950				X										
B3D		0955														
B3E		1000														
B4A		1010														
B4C		1020														
B4D		1025														
B4E		1030														
B5A		1045														
B5B		1050														
B5C		1055														
B5D		1106														
B5E		1105														

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	(A fee may be assessed if samples are retained longer than 3 months)
--	---	--

Turn Around Time Required <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input checked="" type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____	QC Requirements (Specify)
--	---------------------------

1. Relinquished By Rory Woodmansee	Date 09/05/02	Time 1500	1. Received By [Signature]	Date 9-06-02	Time 09:45
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

ATTACHMENT B

Analytical Laboratory Data Sheets

Groundwater Samples

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209

Mailing: Box 289 • Syracuse, NY 13206

Albany (518) 459-3134

Binghamton (607) 724-0478

Buffalo (716) 649-2533

Rochester (585) 436-9070

New Jersey (201) 343-5353

October 7, 2002

Mr. Thomas A. Barba
Senior Project Scientist
C & S Engineers, P.C.
1099 Airport Blvd.
N. Syracuse, NY 13212

Re: Analysis Report #26302003 - Qtrly Wabash Wells

Dear Mr. Barba:

Please find enclosed the results for your samples which were collected by ULI personnel on September 19, 2002.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.


Anthony J. Scala
Director

AJS/tp

Enclosures: report, field data, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 10/4/02. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 10/07/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 26302003
Client I.D.: C & S ENGINEERS, P.C.

APPROVAL: *CJS*
QC: *JS* - Lab I.D.: 10170
Sampled by: ULI

ID:26302003 Mat:Water QRTLY WABASH WELLS B280 1115H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.45SU		09/19/02				FIELD
Field Specific Conductivity	1134umhos/cm		09/19/02				FIELD
Total Arsenic by Low Level	<0.010mg/l		09/26/02				MB4870
Total Lead by Low Level	0.002mg/l		09/27/02				MB4860
Dissolved Arsenic by Low Level	<0.010mg/l		10/01/02				MB4881
Dissolved Lead by Low Level	<0.001mg/l		10/01/02				MB4876
PCB (Aroclors) by EPA Method 8082							
Aroclor 1016	<0.05ug/l		09/28/02				GA1633
Aroclor 1221	<0.05ug/l		09/28/02				GA1633
Aroclor 1232	<0.05ug/l		09/28/02				GA1633
Aroclor 1242	<0.05ug/l		09/28/02				GA1633
Aroclor 1248	<0.05ug/l		09/28/02				GA1633
Aroclor 1254	<0.05ug/l		09/28/02				GA1633
Aroclor 1260	<0.05ug/l		09/28/02				GA1633
Total PCB	<0.05ug/l		09/28/02				GA1633

ID:26302004 Mat:Water QRTLY WABASH WELLS B281 1425H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	6.86SU		09/19/02				FIELD
Field Specific Conductivity	3080umhos/cm		09/19/02				FIELD
Total Arsenic by Low Level	0.023mg/l		09/26/02				MB4870
Total Barium	<0.3mg/l		09/27/02				MB4874
Total Lead by Low Level	<0.001mg/l		09/27/02			28	MB4860
Dissolved Arsenic by Low Level	<0.010mg/l		10/01/02				MB4881
Dissolved Barium	<0.3mg/l		09/27/02				MB4874
Dissolved Lead by Low Level	<0.0001mg/l		10/01/02			28	MB4876

ID:26302005 Mat:Water QRTLY WABASH WELLS B290 1315H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	6.93SU		09/19/02				FIELD
Field Specific Conductivity	2130umhos/cm		09/19/02				FIELD
Total Lead by Low Level	0.006mg/l		09/27/02			27	MB4860
Dissolved Lead by Low Level	<0.001mg/l		10/01/02			28	MB4876

DATE: 10/07/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 26302003
Client I.D.: C & S ENGINEERS, P.C.

APPROVAL: *CJS*
QC: *JS* Lab I.D.: 10170
Sampled by: ULI

ID:26302006 Mat:Water QRTLY WABASH WELLS B401 1030H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.48SU		09/19/02				FIELD
Field Specific Conductivity	644umhos/cm		09/19/02				FIELD
Total Lead by Low Level	0.068mg/l		09/27/02				MB4860
Dissolved Lead by Low Level	0.002mg/l		10/01/02				MB4876

ID:26302007 Mat:Water QRTLY WABASH WELLS B402 1225H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	8.44SU		09/19/02				FIELD
Field Specific Conductivity	2260umhos/cm		09/19/02				FIELD
Total Lead by Low Level	0.004mg/l		09/27/02				MB4860
Dissolved Lead by Low Level	<0.001mg/l		10/01/02				MB4876

PCB (Aroclors) by EPA Method 8082

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Aroclor 1016	<0.05ug/l		09/28/02				GA1633
Aroclor 1221	<0.05ug/l		09/28/02				GA1633
Aroclor 1232	<0.05ug/l		09/28/02				GA1633
Aroclor 1242	<0.05ug/l		09/28/02				GA1633
Aroclor 1248	<0.05ug/l		09/28/02				GA1633
Aroclor 1254	<0.05ug/l		09/28/02				GA1633
Aroclor 1260	<0.05ug/l		09/28/02				GA1633
Total PCB	<0.05ug/l		09/28/02				GA1633

ID:26302008 Mat:Water QRTLY WABASH WELLS B403 1255H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.118U		09/19/02				FIELD
Field Specific Conductivity	456umhos/cm		09/19/02				FIELD
Total Lead by Low Level	0.005mg/l		09/27/02				MB4860
Dissolved Lead by Low Level	<0.001mg/l		10/01/02			28	MB4876

PCB (Aroclors) by EPA Method 8082

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Aroclor 1016	<0.05ug/l		09/28/02				GA1633
Aroclor 1221	<0.05ug/l		09/28/02				GA1633
Aroclor 1232	<0.05ug/l		09/28/02				GA1633
Aroclor 1242	<0.05ug/l		09/28/02				GA1633
Aroclor 1248	<0.05ug/l		09/28/02				GA1633
Aroclor 1254	<0.05ug/l		09/28/02				GA1633
Aroclor 1260	<0.05ug/l		09/28/02				GA1633
Total PCB	<0.05ug/l		09/28/02				GA1633

DATE: 10/07/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 26302003
Client I.D.: C & S ENGINEERS, P.C.

APPROVAL: *CJS*
QC: *JS* - *CJS*
Lab I.D.: 10170
Sampled by: ULI

ID:26302009 Mat:Water QRTLY WABASH WELLS B404 1145H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.09SU		09/19/02				FIELD
Field Specific Conductivity	731umhos/cm		09/19/02				FIELD
Total Lead by Low Level	0.003mg/l		09/27/02				MB4860
Dissolved Lead by Low Level	<0.001mg/l		10/01/02				MB4876
PCB (Aroclors) by EPA Method 8082							
Aroclor 1016	<0.05ug/l		09/28/02				GA1633
Aroclor 1221	<0.05ug/l		09/28/02				GA1633
Aroclor 1232	<0.05ug/l		09/28/02				GA1633
Aroclor 1242	<0.05ug/l		09/28/02				GA1633
Aroclor 1248	<0.05ug/l		09/28/02				GA1633
Aroclor 1254	<0.05ug/l		09/28/02				GA1633
Aroclor 1260	<0.05ug/l		09/28/02				GA1633
Total PCB	<0.05ug/l		09/28/02				GA1633

ID:26302010 Mat:Water QRTLY WABASH WELLS B107 1355H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.44SU		09/19/02				FIELD
Field Specific Conductivity	947umhos/cm		09/19/02				FIELD
Total Barium	0.31mg/l		09/27/02				MB4874
Dissolved Barium	0.34mg/l		09/27/02		15		MB4874

ID:26302011 Mat:Water QRTLY WABASH WELLS B108 1335H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Field pH	7.08SU		09/19/02				FIELD
Field Specific Conductivity	2540umhos/cm		09/19/02				FIELD
Total Barium	0.73mg/l		09/27/02				MB4874
Dissolved Barium	0.78mg/l		09/27/02		15		MB4874

DATE: 10/07/02

Upstate Laboratories, Inc.

Analysis Results

Report Number: 26302003

Client I.D.: C & S ENGINEERS, P.C.

APPROVAL: *CJS*

QC: *JS*

Lab I.D.: 10170

Sampled by: ULI

ID:26302012 Mat:Water QRTLY WABASH WELLS MW-8R 0955H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
Field pH	9.21SU		09/19/02			FIELD
Field Specific Conductivity	933umhos/cm		09/19/02			FIELD
Oil & Grease (Hexane)	<5mg/l		09/25/02			WB0883
Total Lead by Low Level	0.004mg/l		09/27/02			MB4860
Dissolved Lead by Low Level	0.001mg/l		10/01/02		27	MB4876
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.05ug/l		09/28/02			GA1633
Aroclor 1221	<0.05ug/l		09/28/02			GA1633
Aroclor 1232	<0.05ug/l		09/28/02			GA1633
Aroclor 1242	<0.05ug/l		09/28/02			GA1633
Aroclor 1248	<0.05ug/l		09/28/02			GA1633
Aroclor 1254	<0.05ug/l		09/28/02			GA1633
Aroclor 1260	<0.05ug/l		09/28/02			GA1633
Total PCB	<0.05ug/l		09/28/02			GA1633

ID:26302013 Mat:Water QRTLY WABASH WELLS B280 DUPE 1115H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
Total Arsenic by Low Level	<0.010mg/l		09/26/02			MB4870
Total Lead by Low Level	0.001mg/l		09/27/02			MB4860
Dissolved Arsenic by Low Level	<0.010mg/l		10/01/02			MB4881
Dissolved Lead by Low Level	<0.001mg/l		10/01/02			MB4876
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.05ug/l		09/28/02			GA1633
Aroclor 1221	<0.05ug/l		09/28/02			GA1633
Aroclor 1232	<0.05ug/l		09/28/02			GA1633
Aroclor 1242	<0.05ug/l		09/28/02			GA1633
Aroclor 1248	<0.05ug/l		09/28/02			GA1633
Aroclor 1254	<0.05ug/l		09/28/02			GA1633
Aroclor 1260	<0.05ug/l		09/28/02			GA1633
Total PCB	<0.05ug/l		09/28/02			GA1633

DATE: 10/07/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 26302003
Client I.D.: C & S ENGINEERS, P.C.

APPROVAL: *CJS*
QC: *JS* Lab I.D.: 10170
Sampled by: ULI

ID:26302014 Mat:Water QRTLY WABASH WELLS EQUIPMENT BLANK 1435H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Total Arsenic by Low Level	<0.010mg/l		09/26/02				MB4870
Total Barium	<0.3mg/l		09/27/02				MB4874
Total Lead by Low Level	<0.001mg/l		09/27/02				MB4860
Dissolved Arsenic by Low Level	<0.010mg/l		09/26/02				MB4870
Dissolved Barium	<0.3mg/l		09/27/02				MB4874
Dissolved Lead by Low Level	0.002mg/l		09/27/02		15		MB4860
PCB (Aroclors) by EPA Method 8082							
Aroclor 1016	<0.05ug/l		09/28/02				GA1633
Aroclor 1221	<0.05ug/l		09/28/02				GA1633
Aroclor 1232	<0.05ug/l		09/28/02				GA1633
Aroclor 1242	<0.05ug/l		09/28/02				GA1633
Aroclor 1248	<0.05ug/l		09/28/02				GA1633
Aroclor 1254	<0.05ug/l		09/28/02				GA1633
Aroclor 1260	<0.05ug/l		09/28/02				GA1633
Total PCB	<0.05ug/l		09/28/02				GA1633

ID:26302015 Mat:Water QRTLY WABASH WELLS FILTER BLANK 1440H 09/19/02 G

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Dissolved Arsenic by Low Level	<0.010mg/l		09/26/02				MB4870
Dissolved Barium	<0.3mg/l		09/27/02				MB4874
Dissolved Lead by Low Level	0.001mg/l		09/27/02				MB4860

KEY PAGE

1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE
9 QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
10 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
11 RESULTS ARE REPORTED ON AN AS REC.D BASIS
12 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
13 SAMPLE ANALYZED OVER HOLDING TIME
14 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM
15 THE FILTERING PROCEDURE
16 SAMPLED BY ULI
17 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE
18 WITHIN EXPERIMENTAL ERROR
19 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
20 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
21 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL
22 INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
23 CALCULATION BASED ON DRY WEIGHT
24 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION
25 LIMITS
26 UG/KG AS REC.D / UG/KG DRY WT
27 MG/KG AS REC.D / MG/KG DRY WT
28 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
29 SAMPLE DILUTED/BLANK CORRECTED
30 ND (NON-DETECTED)
31 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
32 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
33 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL
34 LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
35 ANALYZED BY METHOD OF STANDARD ADDITIONS
36
37 FIELD MEASURED PARAMETER TAKEN BY CLIENT
38 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
39 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS)
40 PER DAY LAS
41 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED
42 TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20,
43 CREATING A THEORETICAL TCLP VALUE
44 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON
45 PETROLEUM DISTILLATES
46 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
47 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
48 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS)
49 PER DAY OF CL2
50 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
51 (B) DETECTED IN BLANK
52 (D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
53 (E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS
54 INSTRUMENT FOR THAT SPECIFIC ANALYSIS
55 (J) DETECTED BELOW THE CRQL
56 (a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
57 (b) HEADSPACE IN VOA VIAL(S)
58 (c) HEADSPACE IN ALKALINITY BOTTLE(S)
59 (d) SAMPLE CONTAINER(S) RECEIVED BROKEN

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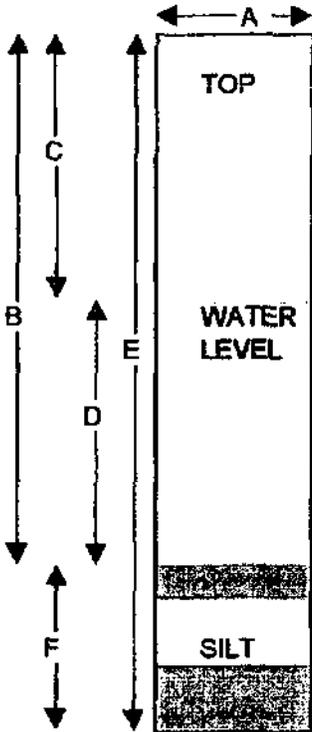
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-280

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ dedicated hose Lock ID: 3210
 Method of Sampling: Peristaltic Pump w/ dedicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>14.14</u>	feet
C.	Depth to Water	<u>5.85</u>	feet
D.	Length of Water Column (calculated)	<u>8.29</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>1.3264</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>3.9792</u>	gallons
	Actual Volume Evacuated	<u>4</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>10:40 AM</u>	<u>11:15 AM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>6.84</u>	<u>7.45</u>
Specific Cond.	<u>1069</u>	<u>1134</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>sl cloudy</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:	
Initial Depth to Water	<u>5.85</u> feet
Recharge Depth to Water	<u>6.13</u> feet
2nd water column height	<u>N/A</u> %
1st water column height	
Elevation (Top of Casing)	<u>N/A</u> feet.
G.W. Elevation =	<u>N/A</u> feet
G.W. Elevation = Top of Case Elev - Total Depth	
Sampler:	<u>Paul Baltzersen</u>
Signature:	<u>Paul Baltz</u>

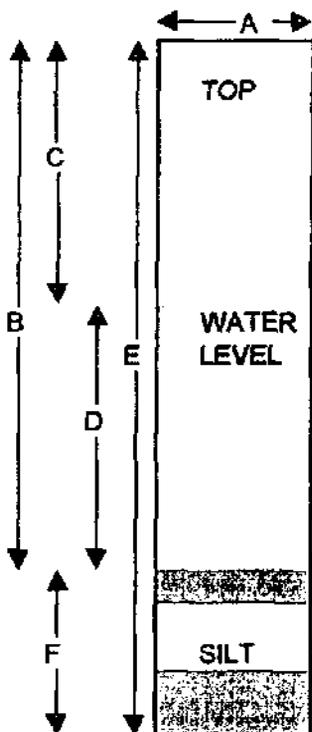
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-281

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ decicated hose Lock ID: 2537
 Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>13.03</u>	feet
C.	Depth to Water	<u>8.53</u>	feet
D.	Length of Water Column (calculated)	<u>4.5</u>	feet
	Conversion Factor	<u>X.16</u>	----
	Well Volume (calculated)	<u>0.72</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	----
	Total Volume to be Evacuated	<u>2.16</u>	gallons
	Actual Volume Evacuated	<u>2.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>2:10 PM</u>	<u>2:25 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>6.76</u>	<u>6.86</u>
Specific Cond.	<u>3180</u>	<u>3080</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:	
Initial Depth to Water	<u>8.53 feet</u>
Recharge Depth to Water	<u>9.66 feet</u>
2nd water column height	<u>N/A %</u>
1st water column height	
Elevation(Top of Casing)	<u>N/A feet</u>
G.W. Elevation=	<u>N/A feet</u>
G.W.Elevation =Top of Case Elev-Total Depth	
Sampler:	<u>Paul Baltzersen</u>
Signature:	<u><i>Paul Baltz</i></u>

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-290

ULI ID No. (enter by lab)

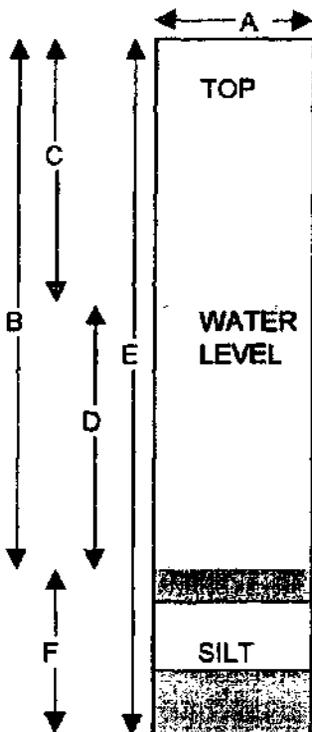
Condition of Well: Good

Locked: YES

Method of Evacuation: Peristaltic Pump w/ decicated hose

Lock ID: 3303

Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>10.26</u>	feet
C.	Depth to Water	<u>5.63</u>	feet
D.	Length of Water Column (calculated)	<u>4.63</u>	feet
	Conversion Factor	<u>X.16</u>	----
	Well Volume (calculated)	<u>0.7408</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	----
	Total Volume to be Evacuated	<u>2.2224</u>	gallons
	Actual Volume Evacuated	<u>2.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>1:00 PM</u>	<u>1:15 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>6.6</u>	<u>6.93</u>
Specific Cond.	<u>2610</u>	<u>2130</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>sl cloudy</u>	<u>clear</u>

% Recharge:

Initial Depth to Water	<u>5.63</u>	feet
Recharge Depth to Water	<u>5.73</u>	feet
2nd water column height	<u>N/A</u>	%
1st water column height		

Elevation (Top of Casing)	<u>N/A</u>	feet
G.W. Elevation =	<u>N/A</u>	feet
G.W. Elevation = Top of Case Elev - Total Depth		

Sampler:

Paul Baltzersen

Signature:

Upstate Laboratories, Inc. Ground water Field Log

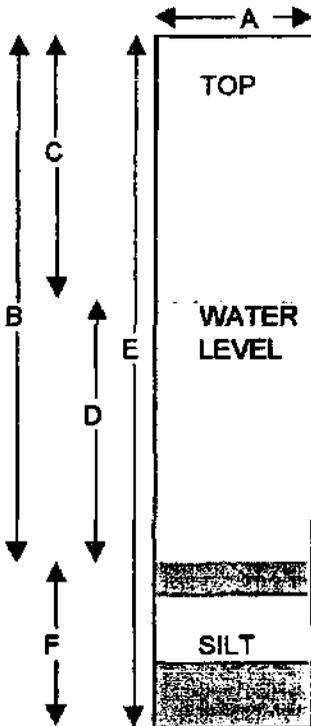
File: TS-30-01

Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-401

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ decicated hose Lock ID: 3303
 Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>11.64</u>	feet
C.	Depth to Water	<u>9.76</u>	feet
D.	Length of Water Column (calculated)	<u>1.88</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>0.3008</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>0.9024</u>	gallons
	Actual Volume Evacuated	<u>1</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>10:05 AM</u>	<u>10:30 AM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>6.72</u>	<u>7.48</u>
Specific Cond.	<u>1150</u>	<u>644</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>

Weather: 75 f sunny 75 f sunny
 Observations: _____

% Recharge:		
Initial Depth to Water	<u>9.76</u>	feet
Recharge Depth to Water	<u>10.31</u>	feet
2nd water column height	<u>N/A</u>	%
1st water column height		
Elevation (Top of Casing)	<u>N/A</u>	feet
G.W. Elevation =	<u>N/A</u>	feet
G.W. Elevation = Top of Case Elev - Total Depth		

Sampler: Paul Baltzersen
 Signature: *Paul Baltzersen*

Upstate Laboratories, Inc. Ground water Field Log

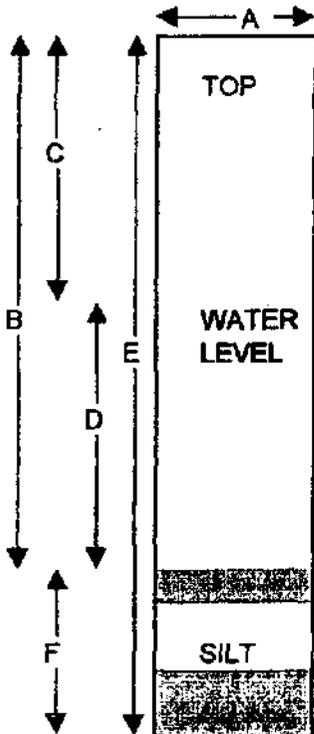
File: TS-30-01

Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-402 MS/MSD

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ decicated hose Lock ID: 3210
 Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>12.24</u>	feet
C.	Depth to Water	<u>5.58</u>	feet
D.	Length of Water Column (calculated)	<u>6.66</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>1.0656</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>3.1968</u>	gallons
	Actual Volume Evacuated	<u>3.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>11:50 AM</u>	<u>12:25 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>8.76</u>	<u>8.44</u>
Specific Cond.	<u>2540</u>	<u>2260</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:	
Initial Depth to Water	<u>5.58</u> feet
Recharge Depth to Water	<u>6.96</u> feet
2nd water column height	<u>N/A</u> %
1st water column height	
Elevation (Top of Casing)	<u>N/A</u> feet
G.W. Elevation =	<u>N/A</u> feet
G.W. Elevation = Top of Case Elev - Total Depth	
Sampler:	<u>Paul Baltzersen</u>
Signature:	<u><i>Paul Baltzersen</i></u>

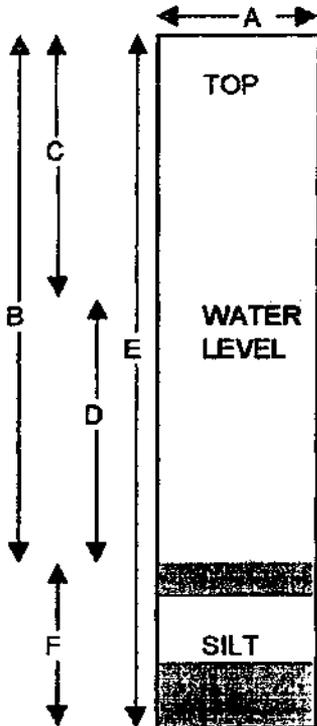
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-403

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ dedicated hose Lock ID: 3303
 Method of Sampling: Peristaltic Pump w/ dedicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>11.26</u>	feet
C.	Depth to Water	<u>4.72</u>	feet
D.	Length of Water Column (calculated)	<u>6.54</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>1.0464</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>3.1392</u>	gallons
	Actual Volume Evacuated	<u>3.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>12:30 PM</u>	<u>12:55 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>7.11</u>	<u>7.11</u>
Specific Cond.	<u>608</u>	<u>456</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:	
Initial Depth to Water	<u>4.72</u> feet
Recharge Depth to Water	<u>5.11</u> feet
2nd water column height	<u>N/A</u> %
1st water column height	
Elevation (Top of Casing)	<u>N/A</u> feet
G.W. Elevation =	<u>N/A</u> feet
G.W. Elevation = Top of Case Elev - Total Depth	
Sampler:	<u>Paul Baltzersen</u>
Signature:	<i>Paul Balt</i>

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/97

Client:

C & S Engineers

Project:

Wabash Quarterly Wells

ULI ID No. (enter by lab)

Well ID.:

B-404

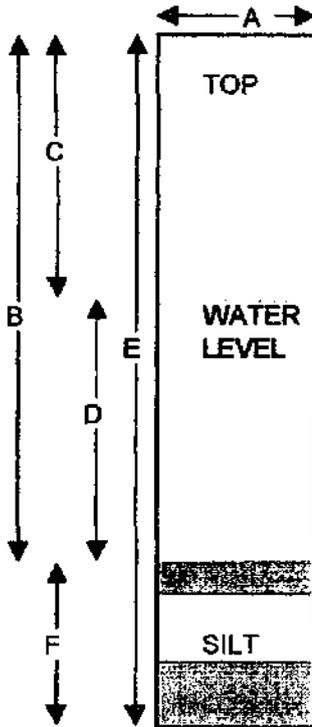
Condition of Well: Good

Locked: YES

Method of Evacuation: Peristaltic Pump w/ dedicated hose

Lock ID: 3210

Method of Sampling: Peristaltic Pump w/ dedicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>16.14</u>	feet
C.	Depth to Water	<u>6.31</u>	feet
D.	Length of Water Column (calculated)	<u>9.83</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>1.5728</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>4.7184</u>	gallons
	Actual Volume Evacuated	<u>5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements

Initial Evacuation

Final Sampling

Date	<u>9/19/02</u>
Time	<u>11:20 AM</u>
EH	<u>N/A</u>
Temperature	<u>N/A</u>
pH	<u>6.86</u>
Specific Cond.	<u>702</u>
Turbidity	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>
Appearance	<u>clear</u>

Date	<u>9/19/02</u>
Time	<u>11:45 AM</u>
EH	<u>N/A</u>
Temperature	<u>N/A</u>
pH	<u>7.09</u>
Specific Cond.	<u>731</u>
Turbidity	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>
Appearance	<u>clear</u>

Weather: 75 f sunny

75 f sunny

Observations:

% Recharge:

Initial Depth to Water	<u>6.31</u>	feet
Recharge Depth to Water	<u>7.45</u>	feet

2nd water column height N/A %
1st water column height

Elevation (Top of Casing)	<u>N/A</u>	feet
G.W. Elevation =	<u>N/A</u>	feet
G.W. Elevation = Top of Case Elev - Total Depth		

Sampler:

Paul Baltzersen

Signature:

Paul Baltzersen

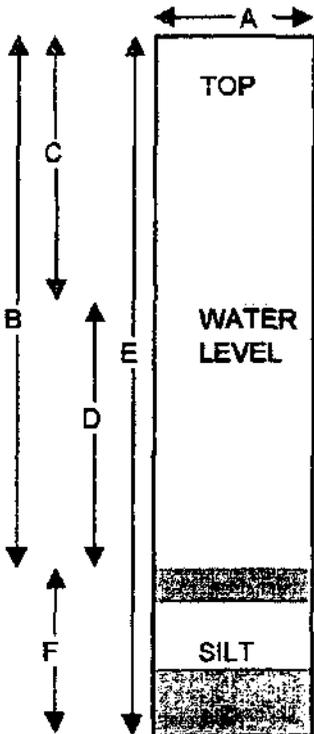
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-107

ULI ID No. (enter by lab)

Condition of Well: Good Locked: NO
 Method of Evacuation: Peristaltic Pump w/ dedicated hose Lock ID: *-----*
 Method of Sampling: Peristaltic Pump w/ dedicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>8.78</u>	feet
C.	Depth to Water	<u>2.77</u>	feet
D.	Length of Water Column (calculated)	<u>6.01</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>0.9616</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>2.8848</u>	gallons
	Actual Volume Evacuated	<u>3</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>1:40 PM</u>	<u>1:55 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>7.41</u>	<u>7.44</u>
Specific Cond.	<u>817</u>	<u>947</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>

Weather: 75 f sunny
 Observations: _____

% Recharge:	
Initial Depth to Water	<u>2.77</u> feet
Recharge Depth to Water	<u>3.07</u> feet
2nd water column height	<u>N/A</u> %
1st water column height	
Elevation (Top of Casing)	<u>N/A</u> feet
G.W. Elevation =	<u>N/A</u> feet
G.W. Elevation = Top of Case Elev. - Total Depth	

Sampler: Paul Baltzersen
 Signature: Paul Baltzersen

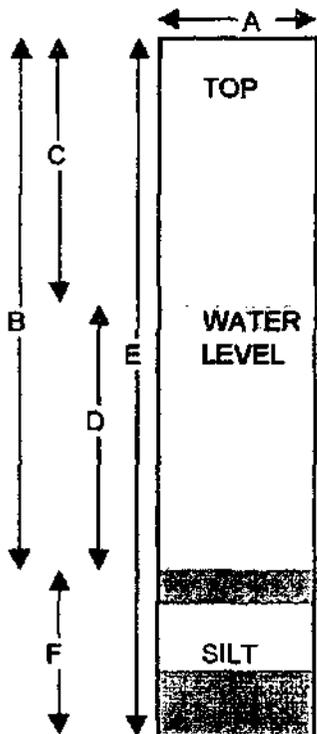
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: B-108

ULI ID No. (enter by lab)

Condition of Well: Good Locked: NO
 Method of Evacuation: Peristaltic Pump w/ decicated hose Lock ID: *-----*
 Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>9.24</u>	feet
C.	Depth to Water	<u>3.69</u>	feet
D.	Length of Water Column (calculated)	<u>5.55</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>0.888</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>2.664</u>	gallons
	Actual Volume Evacuated	<u>3</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>1:20 PM</u>	<u>1:35 PM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>7.05</u>	<u>7.08</u>
Specific Cond.	<u>2560</u>	<u>2540</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:		
Initial Depth to Water	<u>3.69</u>	feet
Recharge Depth to Water	<u>4</u>	feet
2nd water column height	<u>N/A</u>	%
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elev-Total Depth		
Sampler: <u>Paul Baltzersen</u>		
Signature: <u>Paul Baltz</u>		

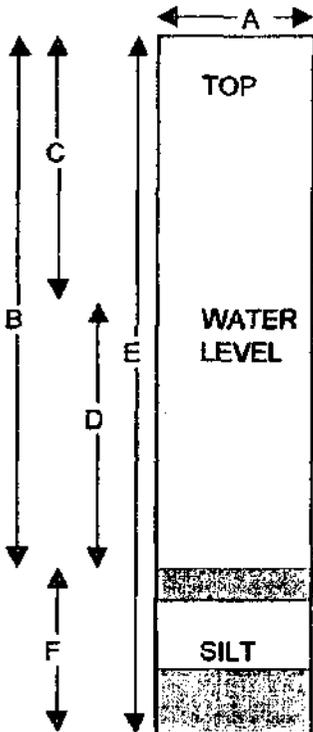
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/97

Client: C & S Engineers
 Project: Wabash Quarterly Wells
 Well ID.: MW-8R

ULI ID No. (enter by lab)

Condition of Well: Good Locked: YES
 Method of Evacuation: Peristaltic Pump w/ decicated hose Lock ID: 3210
 Method of Sampling: Peristaltic Pump w/ decicated hose



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>10.00</u>	feet
C.	Depth to Water	<u>4.82</u>	feet
D.	Length of Water Column (calculated)	<u>5.18</u>	feet
	Conversion Factor	<u>X.16</u>	----
	Well Volume (calculated)	<u>0.8288</u>	gallons
	No. of Volumes to be Evacuated	<u>x3</u>	---
	Total Volume to be Evacuated	<u>2.4864</u>	gallons
	Actual Volume Evacuated	<u>2.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>9/19/02</u>	<u>9/19/02</u>
Time	<u>9:35 AM</u>	<u>9:55 AM</u>
EH	<u>N/A</u>	<u>N/A</u>
Temperature	<u>N/A</u>	<u>N/A</u>
pH	<u>9.86</u>	<u>9.21</u>
Specific Cond.	<u>726</u>	<u>933</u>
Turbidity	<u>N/A</u>	<u>N/A</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>75 f sunny</u>	<u>75 f sunny</u>
Observations:		

% Recharge:		
Initial Depth to Water	<u>4.82</u>	feet
Recharge Depth to Water	<u>5.93</u>	feet
2nd water column height	<u>N/A</u>	%
1st water column height		
Elevation (Top of Casing)	<u>N/A</u>	feet
G.W. Elevation =	<u>N/A</u>	feet
G.W. Elevation = Top of Case Elev - Total Depth		

Sampler: Paul Baltzsen
 Signature: *Paul Baltz*

Upstate Laboratories, Inc.

Chain of Custody Record

10/3

6034 Corporate Drive E. Syracuse New York 13057

Phone (315) 437 0255

Fax (315) 437 1209

Client: C&S ENGINEERS		Project # Project Name: QUARTERLY WABASH WELLS					Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks
Client Contact: RORY WOODMONSEE		Location (city/state) Address: SYRACUSE, N.Y.																
Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only													
B280	9-19-02	11:15A	H2O	GRAB	26302003	3	X	X		X	X	X		X			A-1531	
B281		2:25P	H2O	GRAB		4	2	X	X	X		X	X	X	X			A-1532
B290		1:15P	H2O	GRAB		5	2		X			X		X				A-1533
B401		10:30A	H2O	GRAB		6	2		X			X		X				
B402		12:25P	H2O	GRAB		7	4		X		X	X		X				A-1534 MS/DUPE
B403		12:55P	H2O	GRAB		8	3		X		X	X		X				
B404		11:45A	H2O	GRAB		9	3		X		X	X		X				CRP A-1535
B107		1:55P	H2O	GRAB		10	2			X				X	X			
B108		1:35P	H2O	GRAB		11	2			X				X	X			
MW-8R		9:55A	H2O	GRAB		12	4		X		X	X		X	X			
B280 DUPE		11:15A	H2O	GRAB		13	3		X	X		X	X					A-1531
EQUIPMENT BLANK		2:35P	H2O	GRAB		14	3		X	X	X	X	X	X				A-1526
FILTER BLANK		2:40P	H2O	GRAB		15	1					X	X	X				A-1537

Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print) <i>PAUL BALTZERSEN</i>	Name of Courier	
1 T-AS		PLASTIC	500ml	HNO3			
2 T-PB*		PLASTIC	"	"	Company: ULI		
3 T-BA		PLASTIC	"	"	Relinquished by: (sign)	Date	Time
4 PCB (EPA 8082)		AMBER	32oz	NONE			
5 D-AS		PLASTIC	500ml	HNO3			
6 D-PB*		PLASTIC	"	"	Relinquished by: (sign)	Date	Time
7 D-BA		PLASTIC	"	"			
8 FIELD PH,COND		N/A					
9 O&G		GLASS	32oz	H2SO4	Relinquished by: (sign) <i>Paul Baltz</i>	Date 9/19/02	Time 3:15 P
10							Rec'd for Lab by: <i>[Signature]</i>
Syracuse		Rochester		Buffalo		Albany	
				Binghamton		Fair Lawn (NJ)	